

Canadian Non-Ferrous foundries, die casters, ingot makers

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# CANADIAN NON-FERROUS FOUNDRIES DIE CASTERS INGOT MAKERS

Canada, long a major source of non-ferrous ores and metals, today is becoming increasingly important as a producer of ingots and castings.

In each of these fields, the predominant characteristic of Canadian producers is their ability to provide custom services in addition to producing catalog items of the highest quality at competitive prices for a very broad range of industrial users.

Each year this special skill—along with the high quality of Canadian materials and skilled craftsmanship—is winning increasing numbers of customers in the United States and elsewhere for the many progressive companies in these industries in Canada.

Many of the companies whose products and facilities are detailed in this booklet are already well established in export markets and are producing for United States defense and space programs. Others with an equally high quality of products and services to offer, are now in an excellent position to serve customers outside Canada and are seeking such orders.

Prepared by the Canadian Department of Trade and Commerce in co-operation with the companies listed, this booklet will provide buyers with a reliable guide to the comprehensive range of non-ferrous ingots, castings and die castings now available from Canada.

A reference chart at the beginning of each section of this booklet shows at a glance the range of metals and alloys in which each company produces castings, die castings and ingots.

Further information on any company is readily available at any of the Canadian trade offices in the United States, a complete list of which will also be found at the back of the booklet.

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Albronze Foundry Ltd. 5325 - 1A Street S.W. Calgary, Alberta

Contact: Keith Ball Tel: 255-4688 Area Code: 403

ALBRONZE FOUNDRY LTD., formed 10 years ago, has since grown to be a major non-ferrous operation in Alberta producing general purpose castings for industry to customer specifications. Specializing in bronze and aluminum, the company can also make castings in all other non-ferrous alloys except magnesium. In a recent expansion, the company added permanent mold and injection molding equipment to its modern facilities (see die casting section).

#### FOUNDRY LOCATION:

Albronze Foundry Ltd. 5325 - 1A Street S.W. Calgary, Alberta Tel: 255-4688 Area Code: 403

Type of Castings Produced:

General purpose industrial castings to customer specifications.

Size of Castings Produced:

1 ounce to 300 pounds in bronze, to 250 pounds in aluminum.

Special Processes Used:

Green sand, CO<sub>2</sub>.

Compositions:

All non-ferrous alloys except magnesium.

**Melting Facilities:** 

Floor-type crucibles, 400-pound bale out.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Machining and tumbling on premises.

Alumaloy Castings Limited 483 Eastern Avenue Toronto 8. Ontario

Contact: R. K. Brake Tel: 465-6991 Area Code: 416

ALUMALOY CASTINGS LIMITED, operating for many years as a private company, was reorganized and expanded in 1942 to specialize exclusively in aluminum alloy castings. The company offers an excellent custom service as well as producing a wide range of standard aluminum castings. In recent expansion, new machinery was installed to enable the company to meet all the stringent demands of modern technology.

#### FOUNDRY LOCATION:

Alumaloy Castings Limited 483 Eastern Avenue Toronto 8, Ontario Tel: 465-6991 Area Code: 416

Type of Castings Produced:

Aluminum alloy sand castings, custom and production.

Size of Castings Produced:

Fractional to 800 pounds.

Special Processes Used:

Green sand and carbon dioxide.

Compositions:

Standard aluminum alloys only.

**Melting Facilities:** 

Gas-fired, electronically controlled bale outs.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Available nearby.

# **Aluminum Foundry & Pattern Works Ltd.**

1345 Miron Street Ville St. Laurent Montreal 9, Quebec

Contact: W. B. Chadwick

Tel: 747-7578 Area Code: 514

ALUMINUM FOUNDRY & PATTERN WORKS LTD. is a jobbing foundry with considerable experience in producing aircraft castings to government and air force specifications. Started as a single proprietorship in 1940, the company quickly took on corporate status after several years of experience in producing castings for leading aircraft and tank manufacturers. In three plant expansions since its foundation, the company has assembled a comprehensive range of equipment and a highly skilled staff of engineers and technicians manufacturing all types of aluminum and copper alloy castings.

#### **FOUNDRY LOCATION:**

Aluminum Foundry & Pattern Works Ltd. 1345 Miron Street Ville St. Laurent Montreal 9, Quebec Tel: 747-7578 Area Code: 514

Type of Castings Produced:

All types of aluminum and copper alloy sand castings.

Size of Castings Produced:

Aluminum, 1 to 500 pounds; copper, 1 to 700 pounds.

Special Processes Used:

Green sand, shell and CO2 molding.

Compositions:

Aluminum and copper alloys.

**Melting Facilities:** 

Six Fisher oil furnaces, 700 pounds aluminum, 2,000 pounds copper.

**Heat Treating Facilities:** 

On premises.

Services Available:

Pattern making, impregnation, radiographic and penetrant inspection on premises.

Aluminum Star Products Ltd.

P.O. Box 214 175 College Street Belleville, Ontario

Contact: Stan Kvarda

Tel: 962-8631 Area Code: 613

ALUMINUM STAR PRODUCTS LTD. is a major producer of cast aluminum crests, coats of arms, trademarks and letters in stock and custom designs. The company's skilled staff of draftsmen and technicians has designed and produced some of the most intricate aluminum shapes ever made in a Canadian foundry. Stock letters are available in more than 6,000 patterns in 24 different styles ranging in size from 1½ inches to 48 inches or are made to customer specification. For crests and other signs as well as letters, the company offers a design service which will undertake complete design for the customer and advise on materials, styles, colors, sizes and installation of shapes made to the customer's own design.

#### FOUNDRY LOCATION:

Aluminum Star Products Ltd. 175 College Street Belleville, Ontario Tel: 962-8631 Area Code: 613

Type of Castings Produced:

Architectural and industrial aluminum letters, crests, signs, trademarks.

Size of Castings Produced:

8 ounces to 400 pounds.

Special Processes Used:

Green sand.

Compositions:

Silicon base.

**Melting Facilities:** 

Furnace.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Spray enameling, air drying, fluidizing on premises.

# **Barnard Foundries Division**

Lacal Industries Limited 13 Dundas Street East Brantford, Ontario

Contact: W. A. Hill Tel: 364-5271 Area Code: 416

BARNARD FOUNDRIES DIVISION of Lacal Industries Limited, previously Zenith Alloys Ltd., was purchased by Lacal in 1951. The move was made primarily to ensure for Lacal, a major producer of electrical distribution equipment, a controlled source of supply of high quality castings for its diversified quality products. On purchase, Lacal built a new foundry building and melt shop and installed gas-fired furnaces and semi-automatic sand handling equipment. While still producing for the parent company's electrical distribution program, Barnard Foundries has the capacity and capabilities to undertake a wide range of bronze and aluminum castings for other power transmission equipment manufacturers and for farm implement, pump and special purpose equipment manufacturers.

#### FOUNDRY LOCATION:

Barnard Foundries Division Lacal Industries Limited 13 Dundas Street East Brantford, Ontario Tel: 364-5271 Area Code: 416

Type of Castings Produced:

Bronze and aluminum castings for electrical transmission equipment, custom castings for farm implements, pumps and special equipment manufacturers.

Size of Castings Produced:

2 ounces to 15 pounds.

Special Processes Used:

Green sand, shell, machine and bench, permanent molding.

Compositions:

A, B and C metal, all aluminum alloys, Tenzalloy.

**Melting Facilities:** 

Gas-fired reverberatory and tilting crucible for aluminum, 1,000 pounds per hour; electric arc for bronze, 500 pounds per hour.

**Heat Treating Facilities:** 

Pit type gas-fired furnace and quenching facilities.

Services Available:

Pattern-making and machining facilities in other Lacal operations.

# Bay Bronze (1962) Limited

1520 Wall Street Winnipeg 3, Manitoba

Contact: A. Colonello Tel: 772-9554 Area Code: 204

BAY BRONZE (1962) LIMITED specializing in bronze and aluminum alloy castings was founded in 1941 and has since expanded facilities several times. With the addition of a new permanent mold plant on a five-acre site, the Bay Bronze group of companies – through its exclusive selling agent, Bayco Metal Sales Limited – is in an excellent position to give speedy and efficient service on high quality bronze, copper, and aluminum alloys. Some of the principal products are: high conductivity copper castings, metal sign letters, plaques, gravemarkers, crematorium urns, pole line hardware, plumbing and drainage fittings, Baywall coat and hat racks.

#### FOUNDRY LOCATIONS:

Sand Casting and Machining

Bay Bronze (1962) Limited 1520 Wall Street Winnipeg 3, Manitoba Tel: 772-9554 Area Code: 204

Permanent Mold and Die Casting, Tool and Die

Baycast Products Limited 2200 Logan Avenue Winnipeg 23, Manitoba Tel: 775-0441 Area Code: 204

Type of Castings Produced:

Aluminum and bronze alloy castings, high electrical conductivity copper castings, bronze and aluminum, sign letters, plaques, gravemarkers, pole line hardware, plumbing and drainage fittings.

Size of Castings Produced:

4 ounces to 750 pounds.

Special Processes Used:

Green sand, permanent and shell mold.

Compositions:

Copper base, aluminum base.

**Melting Facilities:** 

5 gas-fired crucible furnaces, 3,000 pounds per day bronze; 1,000 pounds per day aluminum.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Complete tooling and machining facilities on premises.

Bird Foundry Ltd.

396 East First Avenue
Vancouver 10, British Columbia

Contact: G. S. Bentley

Tel: 872-7808 Area Code: 604

BIRD FOUNDRY LTD. was established in 1950 initially to meet needs in the immediate Vancouver area for aluminum and bronze alloys. On the death of the founder, the late E. C. J. Bird, the company was reorganized under the management of A-1 Steel and Iron Foundry Ltd. and further expanded with installation of the latest furnace, heat treating and high production automatic molding equipment. Today the company is highly qualified to produce a wide range of non-ferrous castings in all materials for the electrical, mining, automotive and pulp mill industries.

#### FOUNDRY LOCATION:

Bird Foundry Ltd. 396 East First Avenue Vancouver 10, British Columbia Tel: 872-7808 Area Code: 604

Type of Castings Produced:

Pump impellers, bushings, automotive bronze alloys, aluminum irrigation fittings, bronze and aluminum electrical fittings, aluminum truck parts, mining drill parts.

Size of Castings Produced:

Bronze, 8 ounces to 1,000 pounds; aluminum, 2 ounces to 300 pounds.

Special Processes Used:

Green sand, permanent molding.

Compositions:

All non-ferrous metals.

**Melting Facilities:** 

300-pound pit furnaces, 600-pound tilt furnace.

**Heat Treating Facilities:** 

400-pound aluminum heat treating on premises.

Services Available:

All types of machining and finishing on premises.

# Black Clawson-Kennedy Ltd.

Owen Sound, Ontario

Contact: R. Warburton

Tel: 376-8860 Area Code: 519

BLACK CLAWSON-KENNEDY LTD., established in 1857 as a foundry and millwright business, produces a large variety of quality castings to customer specifications. The company's extensive facilities have been expanded and modernized several times to make a diversity of production possible for a wide range of manufacturers. Currently the firm produces on a large scale castings of various alloys for marine and other industries. These include manufacturers of hydraulic equipment, cement mill and pulp and paper machinery. Castings are also produced for valves, pressure pumps and centrifugal cast liners and a variety of other uses in sizes ranging from one to 50,000 pounds.

#### FOUNDRY LOCATION:

Black Clawson-Kennedy Ltd. Owen Sound, Ontario Tel: 376-8860 Area Code: 519

Type of Castings Produced:

Marine propellers, general purpose castings.

Size of Castings Produced: 1 to 50,000 pounds.

Special Processes Used:

Green and dry sand.

Compositions:

All brasses and bronzes including manganese and nickel aluminum bronzes.

Melting Facilities:

Direct arc induction, oil-fired reverberatory furnaces

and crucibles.

Heat Treating Facilities:

Available on premises.

Services Available:

Complete physical, chemical, gamma ray and zyglo inspection and machining facilities on premises.

# **Canadian Bronze Company, Limited**

999 Delorimier Avenue Montreal 24. Quebec

Contact: A. J. Moore Tel: 524-1133 Area Code: 514

CANADIAN BRONZE COMPANY, LIMITED, a major Canadian producer of non-ferrous castings, has plants in Montreal, Winnipeg and Calgary with a total manufacturing space of 140,000 square feet and capacity of some 2,100,000 pounds of castings monthly on a one-shift basis. Specializing in bronze castings, the company uses alloys covering the complete range of tin, leaded, silicon, aluminum and manganese bronzes. Castings produced range from ounces to about 12,000 pounds. The company supplies solid journal bearings to all railroads operating in Canada and has the capacity, skills and equipment to make castings for a wide range of heavy capital goods manufacturers, mines, pulp and paper and steel mills and chemical and petroleum plants as well as defense industries.

#### FOUNDRY LOCATIONS:

999 Delorimier Avenue Montreal 24, Quebec Tel: 524-1133 Area Code: 514

Canadian Bronze Company, Limited Canadian Bronze Company, Limited 15 Bury Street Winnipeg, Manitoba Tel: 783-7164 Area Code: 204

Canadian Bronze Company, Limited 1609 24th Avenue S.E. Calgary, Alberta Tel: 273-1065 Area Code: 403

Type of Castings Produced:

Railroad, pulp and paper, aircraft, shipbuilding and miscellaneous castings.

Size of Castings Produced:

4 ounces to 12,000 pounds.

Special Processes Used:

Green and dry sand, floor, pit, centrifugal, molding machines, permanent mold, shell core.

Compositions:

Brass, bronze, aluminum.

**Melting Facilities:** 

Low frequency electrical, oil reverberatory, direct arc electrical, high frequency electrical and pit furnaces.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Spinning, machining, plating and pattern making on premises.

# Coulter Copper & Brass Co., Limited

44 Coronet Road Toronto 18, Ontario

Contact: W. R. Coulter

Tel: 239-2771 Area Code: 416

COULTER COPPER & BRASS CO., LIMITED is the present name of a business started in Canada in 1853 as Booth & Sons which merged with Coulter & Son in 1909. It has been owner-managed throughout its history and has been in the non-ferrous foundry industry for more than 60 years. Initially specializing in high quality bronze castings for a variety of applications, the company added facilities for aluminum castings in the 1930's. Current production is mainly in high conductivity bronze and aluminum sand castings for electrical switchgear. fire fighting brasswork and other applications.

#### FOUNDRY LOCATION:

Coulter Copper & Brass Co., Limited 79 Shorncliffe Road Toronto 18. Ontario Tel: 239-2257 Area Code: 416

Type of Castings Produced:

Bronze, high-conductivity and aluminum sand castings for electrical switchgear, fire fighting brasswork and miscellaneous applications.

Size of Castings Produced:

1 ounce to 25 pounds, regular production. To 500 pounds on special order.

Special Processes Used:

Synthetic sand, CO2, shell cores.

Compositions:

Copper base-tin-lead-zinc, copper-silicon, copper-phosphorous-tin and aluminum base alloys.

**Melting Facilities:** 

2 gas-fired crucible furnaces, 450 pounds each.

**Heat Treating Facilities:** Available nearby.

Services Available:

Machine shop with turret, engine and fox lathes, milling machines and drill presses on premises.

#### **Deloro Stellite**

Division of Deloro Smelting & Refining Company, Limited P.O. Box 341 Belleville, Ontario

Contact: B. G. MacKenzie

Tel: 968-6431 Area Code: 613

DELORO STELLITE, Division of Deloro Smelting & Refining Company Limited, the world's first producer of commercial cobalt metal, started producing Stellite in 1915. Subsidiary companies now operate in Britain and France. First in North America to put resin shell molding into production, the company was also the first licensee in Canada for the Shaw process of ceramic mold castings. The company has operated a lost wax investment foundry for the production of aircraft parts since 1945, producing to military aircraft specifications. In production for industry the company makes castings up to 200 pounds for the pulp and paper, mining, textile, steel mill and industrial equipment industries.

#### FOUNDRY LOCATION:

Deloro Stellite Division of Deloro Smelting & Refining Company, Limited Belleville, Ontario Tel: 968-6431 Area Code: 613

Type of Castings Produced:

Alloy, aircraft, pulp and paper, mining, textile, steel mill and industrial equipment components where resistance to heat, corrosion, erosion and abrasion is essential.

#### Size of Castings Produced:

1 ounce to 200 pounds.

#### Special Processes Used:

Green sand, baked sand, ceramic shell and resin shell molding, investment and centrifugal casting, Shaw process.

#### Compositions:

Cobalt and nickel bases, aluminum stainless steels.

#### Melting Facilities:

12 furnaces, 10 to 400 pounds.

#### **Heat Treating Facilities:**

12 heat treat furnaces.

#### Services Available:

Complete finishing to customer's drawings, welding, tumbling, shot blasting, R.C.A.F.-approved quality control, complete metallurgical investigation facility including radiography on premises.

#### **Emco Limited**

1108 Dundas Street London, Ontario

Contact: F. G. Smith Tel: 451-1250

Area Code: 519

EMCO LIMITED has continuously expanded and modernized its facilities since it was established as a brass foundry and machine shop in 1903. Noted for its quality products, the company is a leading supplier of castings for the plumbing and heating industries. It also manufactures fluid handling equipment for the petroleum and petrochemical industries. Included in the more than 6,000 standard castings made by the company are chrome plated plumbing fixture trim and bronze valves and fittings. The modern foundry facilities are highly automated, putting the company in an excellent position to provide quality castings at competitive prices.

#### FOUNDRY LOCATION:

Emco Limited 1108 Dundas Street London, Ontario Tel: 451-1250 Area Code: 519

#### Type of Castings Produced:

Non-ferrous castings for the plumbing and heating industries, fluid handling equipment.

#### Size of Castings Produced:

To 10 pounds.

#### Special Processes Used:

Green sand, shell core.

#### Composition:

Copper base alloys.

# Melting Facilities:

Electric furnaces, 2 tons per hour.

# **Heat Treating Facilities:**

Annealing on premises and nearby.

#### Services Available:

Machining, buffing and plating on premises.

# **Galt Brass Company, Limited**

Galt, Ontario

Contact: M. B. Horner

Tel: 621-1720 Area Code: 519

GALT BRASS COMPANY, LIMITED has been a leading Canadian supplier of custom and standard brass castings since 1907. The company's products, primarily for the plumbing and electrical industries, are sold across Canada. Individual parts to customer requirements in sizes up to five pounds are a regular part of the company's extensive business. Modern facilities include supporting patternmaking and tool facilities, machining, electroplating and assembly departments.

#### FOUNDRY LOCATION:

Galt Brass Company, Limited Galt, Ontario Tel: 621-1720 Area Code: 519

Type of Castings Produced:

Brass castings for plumbing and electrical industries.

Size of Castings Produced:

To 5 pounds.

Special Processes Used:

Green sand.

Compositions:

Brass.

Melting Facilities:

Electric furnaces.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Machining, electro-plating, copper, nickel and chromium, assembly, tooling on premises.

The J. Hardt Mfg. Inc.

560 - 19th Avenue Lachine, Quebec

Contact: G. J. Albertine

Tel: 637-4494 Area Code: 514

THE J. HARDT MFG. INC. is a diversified manufacturing company with a modern, efficient foundry as an integral part of its operations. Founded in 1943, the company has capacity for jobbing castings in copper and aluminum base alloys for general industry. A specialty is ornamental and other castings for furniture and hardware manufacturers. Machine shop, sheet metal forming and welding facilities are available.

#### FOUNDRY LOCATION:

The J. Hardt Mfg. Inc. 560 - 19th Avenue Lachine, Quebec Tel: 637-4494 Area Code: 514

Type of Castings Produced:

Copper and aluminum base alloys.

Size of Castings Produced:

6 ounces to 60 pounds.

Special Processes Used:

Green sand, limited permanent mold.

Compositions:

Copper, aluminum alloys.

**Melting Facilities:** 

Oil-fired crucible, 80 pounds per 35 minutes.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Machining, buffing, painting, welding on premises.

# Johnson Matthey & Mallory Ltd.

Foundry Division 16 Smith Street St. Catharines, Ontario

Contact: John Allan Tel: 682-9258 Area Code: 416

JOHNSON MATTHEY & MALLORY LTD., the Canadian arm of a world-wide organization founded in Britain in 1812, operates a non-ferrous foundry that has been in successful operation since 1905. Formerly the St. Catharines Brass Works, the Foundry Division of Johnson Matthey is housed in modern buildings with the latest equipment. Capable management, stringent quality control and superior machining and finishing techniques combine to ensure products of the highest reliability for the electrical power transmission, automotive tooling and plumbing goods industries. The company produces high volume matchplate castings in all standard non-ferrous alloys and short run items in special alloys.

#### FOUNDRY LOCATION:

Johnson Matthey & Mallory Ltd 16 Smith Street St. Catharines, Ontario Tel: 682-9258 Area Code: 416

Type of Castings Produced:

High volume matchplate castings in any non-ferrous alloy, short runs in special alloys—for electrical power transmission, automotive tooling and plumbing goods fields and other industries.

Size of Castings Produced:

1/2 ounce to 500 pounds.

Special Processes Used:

Green and dry sand with shell cores.

Compositions:

Copper, copper base, aluminum base, RWMA alloys. **Melting Facilities:** 

200 to 600-pound induction electric furnaces, 300-pound oil-fired pit furnaces.

**Heat Treating Facilities:** 

Can heat treat copper and aluminum base alloys on the premises and nearby.

Services Available:

Facilities to work from finished drawings to finished goods on simple assemblies. Patternmaking, machining and polishing on premises.

# **Light Alloys**

Division of Haley Industries Limited Haley, Ontario

Contact: Ian H. Rutherford

Tel: 432-4875 Area Code: 613

LIGHT ALLOYS, Division of Haley Industries Limited, is successor to the original company formed in 1946 to produce high quality castings in magnesium and aluminum alloys in the aircraft industry. In the past few years the company has played an increasing part in the supply of light alloy castings to the U.S.-Canadian defense sharing program. At present, more than 60 per cent of the production of this foundry, which is capable of meeting the most stringent U.S. military specifications for high quality aircraft castings, goes to the major U.S. aircraft engine and airframe manufacturers.

#### FOUNDRY LOCATION:

Light Alloys Division of Haley Industries Limited Haley, Ontario Tel: 432-4875 Area Code: 613

#### Type of Castings Produced:

Sand castings in magnesium and aluminum alloys to aircraft specifications and standards, permanent mold castings in aluminum alloys.

Size of Castings Produced:

6 ounces to 600 pounds, depending on alloy and shape. Special Processes Used:

Green and dry sand, permanent and shell mold.

Compositions:

Magnesium and aluminum alloys.

**Melting Facilities:** 

4 magnesium-aluminum tilting furnaces, 750 to 1,200 pounds; 16 magnesium-aluminum liftout furnaces, 200 to 400 pounds.

**Heat Treating Facilities:** 

2 Efco Peacock electric pit type furnaces, 1 Walker electric furnace, 1 Salem electric furnace on premises.

Services Available:

Magnesium pickling, Dow type 1, radiographic, fluorescent penetrant, physical testing, chemical analysis on premises.

# Lunenburg Foundry & Engineering Ltd.

Lunenburg, Nova Scotia

Contact: J. J. Kinley, Jr.

Tel: 634-8827 Area Code: 902

LUNENBURG FOUNDRY & ENGINEERING LTD. has been actively engaged in producing castings and complete machinery for shipbuilders and general marine use since 1891. The product list of this leading marine castings company is a long one. It includes both standard catalog items and custom designed and manufactured machinery and parts. The company manufactures to Royal Canadian Navy specifications and at present is supplying castings to the navy, ship owners and shipbuilders and paper mill and electronics equipment manufacturers.

#### FOUNDRY LOCATION:

Lunenburg Foundry & Engineering Ltd. Lunenburg, Nova Scotia Tel: 634-8827 Area Code: 902

#### Type of Castings Produced:

Marine hardware, standard and custom-designed, such as ship's bells, propellers, steering wheels and gears, stern bearings, stuffing boxes, struts, wearing sleeves, complete underwater assemblies.

# Size of Castings Produced:

3 ounces to 2,000 pounds.

#### Special Processes Used:

Green and dry sand, matchplates.

#### Compositions:

Brass, phosphor, nickel, manganese and silicon bronze, gunmetal, lead, bell metal, aluminum, aluminum alloy—all to ASTM and Royal Canadian Navy specifications.

#### **Melting Facilities:**

3 oil-fired pit furnaces, 200-pound crucible, 1 Hausfield oil-fired tilting furnace, 200-pound crucible.

# **Heat Treating Facilities:**

Available nearby.

#### Services Available:

Cleaning, polishing, buffing, machining, welding on premises.

# The Robert Mitchell Co., Limited

350 Decarie Boulevard P.O. Box 950, Station O St. Laurent, Montreal 9, Quebec

Contact: George H. Holland

Tel: **747-2471** Area Code: **514** 

THE ROBERT MITCHELL CO., LIMITED, established in 1851, has the staff and facilities to design, plan and produce custom-made equipment and parts to the most rigid specifications in aluminum and magnesium alloys. The high rating and progressive policies of the company are reflected in continuously increasing sales across Canada and to several areas of the United States. The company has a staff of 600 in a 275,000-square-foot facility producing a wide range of commercial hardware, special motor and equipment parts and experimental parts. Producing aircraft and missile parts to design and specification, the company's foundry facilities are officially approved by such leading manufacturers in this field as General Dynamics, Boeing and Northrop.

#### FOUNDRY LOCATION:

The Robert Mitchell Co., Limited 350 Decarie Boulevard Montreal 9, Quebec Tel: 747-2471 Area Code: 514

#### Type of Castings Produced:

Large variety of individual pieces and semi-production quantities. Hardware, special motor and equipment parts, experimental parts. Aircraft and missile parts to design and specification.

#### Size of Castings Produced:

Aluminum alloy, 4 ounces to 900 pounds; magnesium alloy, 4 ounces to 500 pounds.

#### Special Processes Used:

Green sand, CO<sub>2</sub>, permanent mold (limited design).

#### Compositions:

20 aluminum base alloys, 10 magnesium alloys, limited brass and bronze alloys.

#### **Melting Facilities:**

Oil-fired furnaces, 100 to 600 pounds.

# **Heat Treating Facilities:**

3 furnaces, 0 to 1,400° F on premises.

#### Services Available:

Machine shop, sandblast, grinding, polishing, welding. Full physical and chemical testing, X-ray, isotope, zyglo. All on premises.

**Mueller, Limited** 

Clifford Street Sarnia, Ontario

Contact: G. McAvity

Tel: 344-1195 Area Code: 519

MUELLER, LIMITED has been in continuous operation for more than 50 years specializing in quality brass and commercial bronze products for the plumbing and heating trades and water and gas distribution industries. The company has one of the most modern foundries in North America and one of the most productive. Producing solid and cored castings ranging from one half pound to 20 pounds, the company offers products of excellent finish and durability ensured by the highest degree of quality control and a full range of equipment which is kept constantly up to date.

#### FOUNDRY LOCATION:

Mueller, Limited Clifford Street Sarnia, Ontario Tel: 344-1195 Area Code: 519

Type of Castings Produced:

Commercial bronze and quality brass castings for the water and gas industries, solid and cored.

Size of Castings Produced:

8 ounces to 20 pounds.

Special Processes Used:

Shell, ferrule and green sand cores, green sand with automatic and jolt switch machines.

Compositions:

Brass and high-tin bronze.

**Melting Facilities:** 

Ajax induction furnaces, 80,000 pounds per day.

**Heat Treating Facilities:** 

None.

Services Available:

Machining, polishing, buffing and plating on premises.

# Niagara Bronze Limited

497 Buttrey Street Niagara Falls, Ontario

Contact: M. N. Tallman

Tel: 354-5323 Area Code: 416

NIAGARA BRONZE LIMITED has been in operation 28 years serving the industrial equipment, construction and plumbing industries with quality castings in brass, bronze, nickel bronze, high conductivity copper alloys and aluminum alloys. The company produces to military specifications for the Canadian armed forces. In the industrial field, modern facilities and a highly skilled staff make it possible for the company to supply castings to virtually all types of fabricating and manufacturing industries. Principal industries currently served are steel mills, electrical equipment, plumbing and boatbuilding.

#### **FOUNDRY LOCATION:**

Niagara Bronze Limited 497 Buttrey Street Niagara Falls, Ontario Tel: 354-5323 Area Code: 416

Type of Castings Produced:

Bearings, bushings, slippers, valves, castings for electrical, boatbuilding and plumbing industries, ornamental castings.

Size of Castings Produced:

To 300 pounds in bronze or copper, to 100 pounds in aluminum.

Special Processes Used:

Green and oil sand, shell, CO2 cores.

Compositions:

All copper base brasses and bronzes including monel and other nickel base brasses and bronzes, copper, aluminum.

Melting Facilities:

Induction furnaces.

Heat Treating Facilities:

Available nearby.

Services Available:

Machining, polishing, plating, anodizing available nearby.

# **Penberthy Injector Limited**

P.O. Box 1009 St. Catharines, Ontario

Contact: C. A. Rogers

Tel: 682-8621 Area Code: 416

PENBERTHY INJECTOR LIMITED has been operating in Canada since 1886, at which time the Penberthy automatic injector was offered to boiler suppliers. In recent years the company has manufactured a variety of special brass castings for railways, naval and commercial shipbuilding and other industries. The quality of castings and finished work offered by the company has won contracts for special injector castings with the Atomic Energy Commission of Canada and with similar bodies in India, Pakistan and other countries. The company's modern foundry operation for production of copper based alloys and aluminum is supported by first-class machining facilities for finishing operations.

#### FOUNDRY LOCATION:

Penberthy Injector Limited St. Catharines, Ontario Tel: 682-8621 Area Code: 416

Type of Castings Produced:

Bronze valves for plumbing trade, brass castings for railroad, shipbuilding and other industries, special injector castings for nuclear industries.

Size of Castings Produced:

2 ounces to 100 pounds.

Special Processes Used:

Green sand mold, shell and green sand cores.

Compositions:

Copper base alloys, aluminum.

**Melting Facilities:** 

Detroit Electric, 400 pounds; oil tilt furnace, 400 pounds.

**Heat Treating Facilities:** 

Available nearby.

Services Available:

Machine shop on premises.

#### **Rahn Metals Limited**

P.O. Box 168 North Bay, Ontario

Contact: E. J. Pennock

Tel: **474-0410** Area Code: **705** 

RAHN METALS LIMITED was established in 1929 to supply castings and babbitt metals to the mining, paper, railroad and steel industries. Operating as a jobbing foundry, the company has wide experience in producing a large variety of castings in many alloys, both machined and unmachined. The company specializes in heavy manganese bronze and high lead bronze castings and supplies these to crusher manufacturers. Other castings are produced for leading mining and metal processing companies. The company's tool shop makes dies and molds for its plastic extrusion and molding division.

#### FOUNDRY LOCATION:

Rahn Metals Limited North Bay, Ontario Tel: 474-0410 Area Code: 705

Type of Castings Produced:

Bronze bushings, bronze and aluminum industrial castings, railway journal bearings.

Size of Castings Produced:

1 ounce to 3,500 pounds.

Special Processes Used:

Green sand, CO<sub>2</sub>, airset, flask and pit molding.

Compositions:

Copper and aluminum base alloys, lead and tin base babbitts.

**Melting Facilities:** 

Gas-fired pit, rotary and reverberatory furnaces.

**Heat Treating Facilities:** 

Vone.

Services Available:

Complete modern machine shop on premises.

# **Samco Brass Limited**

69 Catherine Street St. Catharines, Ontario

Contact: W. D. Bolster

Tel: 684-8588 Area Code: 416

SAMCO BRASS LIMITED, established in 1956, has since grown to be one of Canada's leading non-ferrous jobbing foundries serving all branches of industry and especially the major manufacturers of electrical apparatus. Castings are produced by the company in an exceptionally wide range of copper base and aluminum base alloys. High conductivity copper, beryllium copper and chrome copper alloys are specialties. In a recent expansion, the company moved to a new location with 50,000 square feet of manufacturing space.

#### FOUNDRY LOCATION:

Samco Brass Limited 69 Catherine Street St. Catharines, Ontario Tel: 684-8588 Area Code: 416

Type of Castings Produced:

Castings for the electrical industry including motor, generator, circuit breaker, transformer, EHV disconnect switch parts; water cooled parts for resistance welding machines; valves and hydrant castings; large castings for steel, pulp and paper and automotive industries.

#### Size of Castings Produced:

1 ounce to 2,000 pounds.

#### Special Processes Used:

Green sand, CO<sub>2</sub> molds—permanent or shell mold may also be undertaken.

#### Compositions:

Copper, copper base, aluminum and aluminum base alloys.

#### **Melting Facilities:**

Oil-fired liftout crucible furnaces, 50 tons per month.

#### **Heat Treating Facilities:**

Available nearby.

# Services Available:

Pattern making and machine shop facilities available nearby.

# **N. Slater Company**

A Division of Slater Steel Industries Ltd. Hamilton, Ontario

Contact: W. F. Corkran

Tel: 528-8888 Area Code: 416

N. SLATER COMPANY was founded in 1917 to take over the business of three companies which had been producing metal stampings, forgings and electrical equipment. Since then the company has specialized in the manufacture of pole line hardware for the transmission and distribution of electrical power and is recognized as a foremost producer of hardware for the comunications industry. The company offers a custom manufacturing service which includes product and tool design, forging, deep drawing, stamping, aluminum alloy casting, hot-dip galvanizing and other processes.

#### FOUNDRY LOCATION:

N. Slater Company A Division of Slater Steel Industries Ltd Hamilton, Ontario Tel: 528-8888 Area Code: 416

#### Type of Castings Produced:

Aircraft, marine, short run automotive, electrical, pressure type, domestic appliances.

#### Size of Castings Produced:

To 250 pounds.

#### Special Processes Used:

Green sand, permanent mold, shell and CO<sub>2</sub> cores.

# Compositions:

Aluminum base alloys.

#### **Melting Facilities:**

Bale out to 400 pounds, hand tilt to 500 pounds, 80-pound idle draw.

#### **Heat Treating Facilities:**

90 cubic foot aluminum alloy heat treat furnace with quenching facilities on premises.

# Services Available:

Turning, milling, drilling, tapping, threading, grinding, polishing on premises.

# Specialloid (Canada) Limited

29 Oka Road St. Eustache, Quebec

Contact: E. S. Bailey Tel: 473-6804 Area Code: 514

SPECIALLOID (CANADA) LIMITED, which has been in continuous operation for 20 years, makes some of the largest permanent mold aluminum alloy castings produced in North America. The company has a complete design and engineering staff to undertake design and development of castings to suit individual customer requirements. Customers include departments of the Canadian government, the automotive and general industries and engineering establishments. Heat treat is available for all aluminum alloys in the Alcan or Alcoa ranges, while a battery of 10 bale-out furnaces of varying capacities gives flexibility for diverse programing.

#### FOUNDRY LOCATION:

Specialloid (Canada) Limited 29 Oka Road St. Eustache, Quebec Tel: 473-6804 Area Code: 514

#### Type of Castings Produced:

Aluminum alloy castings. Size of Castings Produced:

8 ounces to 250 pounds.

#### Special Processes Used:

Permanent mold only.

#### Compositions:

Complete range of Alcan and Alcoa alloys.

#### **Melting Facilities:**

Bale-out furnaces from 100 to 1,000 pounds.

#### **Heat Treating Facilities:**

For all aluminum alloy castings on premises.

#### Services Available:

Some finish capacity for pistons (less pins) on premises.

# Supreme Precision Castings (1963) Ltd.

550 Montee de Liesse Montreal 9, Quebec

Contact: H. H. Johnston

Tel: 747-3528 Area Code: 514

SUPREME PRECISION CASTINGS (1963) LTD. started operations in 1954 mainly to produce castings for the aircraft industry. The company later began to provide castings for the electronics field and is now producing for a variety of industrial uses. Making castings to Royal Canadian Air Force specifications has helped the firm in dealing with export customers, particularly those with defense contracts. It can certify work to class 1A standards. Operating a tool shop, the company makes its own molds (dies) and is able to maintain foundry molds in top condition and give prompt service when new tooling is necessary. Customers' molds may be stored in a fireproof vault free of charge.

#### FOUNDRY LOCATION:

Supreme Precision Castings (1963) Ltd. 550 Montee de Liesse Montreal 9, Quebec Tel: 747-3528 Area Code: 514

#### Type of Castings Produced:

Aircraft, electronic, industrial and commercial.

# Size of Castings Produced:

½ ounce to 15 pounds.

#### Special Processes Used:

Precision investment castings by the lost wax process.

Compositions:

# Aluminum, copper and nickel alloys.

#### **Melting Facilities:**

Electric induction furnace, gas-fired melting furnaces.

#### **Heat Treating Facilities:**

Available on premises.

#### Services Available:

Full chemical and physical analysis, X-ray, zyglo on premises.

# A. H. Tallman Bronze Co. Ltd.

2220 Industrial Street Burlington, Ontario

Contact: T. E. Langs Tel: 637-3491 Area Code: 416

A. H. TALLMAN BRONZE CO. LTD. has been producing non-ferrous castings for the last 60 years. Originally specializing in copper and copper base alloys — and still a major supplier of castings in these materials — the company has since expanded to produce monel metal and aluminum castings. Facilities include the latest in equipment for centrifugal and shell molding and for producing large sand molded castings. The company makes a variety of castings for the steel industry such as copper tuyeres, cooler plates, oxygen nozzles and bearing liners as well as centrifugally cast gears, pump parts, electrical resistance rings and plumbing fittings.

#### FOUNDRY LOCATION:

A. H. Tallman Bronze Co. Ltd. 2220 Industrial Street Burlington, Ontario Tel: 637-3491 Area Code: 416

#### Type of Castings Produced:

Copper tuyeres, cooler plates, oxygen nozzles, bearing liners, centrifugally-cast gears, pump parts, electrical resistance rings, plumbing fittings.

#### Size of Castings Produced:

½ ounce to 3,500 pounds.

# Special Processes Used:

Shell mold, centrifugal, green sand.

#### Compositions:

Copper, copper base, monels, aluminum.

#### **Melting Facilities:**

Gas-fired tilt and liftout furnaces with total pour-capacity of 4,500 pounds.

#### **Heat Treating Facilities:**

Available nearby.

# Services Available:

Available nearby.

# **Thompson Products, Limited**

230 Louth Street St. Catharines, Ontario

Contact: R. J. Twaddle

Tel: 685-8411 Area Code: 416

THOMPSON PRODUCTS, LIMITED, a subsidiary of T.R.W. Inc., has been in continuous operation since 1929 as a parts supplier to the aircraft, automotive, mining and construction industries. Employing 1,500 people in a 400,000-square-foot plant, the company also maintains warehouses in seven principal cities. The manufacturing operation is an integrated forging, casting and machining facility supported by comprehensive quality control and metallurgical laboratory services. Products include automotive valves, pistons, steering linkage components and assemblies, steering arms and knuckles, military and commercial castings and forgings, mining drill rods and drill bits.

#### FOUNDRY LOCATION:

Thompson Products, Limited 230 Louth Street St. Catharines, Ontario Tel: 685-8411 Area Code: 416

#### Type of Castings Produced:

Automotive and commercial aluminum alloy castings. Size of Castings Produced:

#### To 5 pounds.

#### Special Processes Used:

Automatic and semi-automatic permanent mold.

#### Compositions:

Aluminum-silicon-copper F 132.

#### Melting Facilities:

Gas-fired, reverberatory, aluminum melting furnaces, 4,000 pounds per hour capacity.

# Heat Treating Facilities:

Aging furnaces plus extensive miscellaneous heat treating facilities on premises.

# Services Available:

Turning, boring, milling, drilling, broaching, grinding on premises.

# Union Screen Plate Co. Ltd.

Lennoxville, Quebec

Contact: A. S. Mitchell

Tel: **562-4754** Area Code: **819** 

UNION SCREEN PLATE CO. LTD. was founded in 1903 to produce bronze screen plates for the pulp and paper industry. Since then the company has expanded into other fields and now produces a wide range of castings for industry in standard lines and to customer specifications. One of Canada's leading producers in copper and aluminum alloys and monel, the company has a reputation for high quality in the pump casings, impellers and the general types of industrial castings it produces.

#### FOUNDRY LOCATION:

Union Screen Plate Co. Ltd. Lennoxville, Quebec Tel: 562-4754 Area Code: 819

Type of Castings Produced:

Pump casings, impellers and general industrial castings.

Size of Castings Produced:

8 ounces to 3,000 pounds.

Special Processes Used:

Green and dry sand, quick set, centrifugal for bushings. Compositions:

Copper and aluminum bases, monels.

**Melting Facilities:** 

Detroit electric, 1,400 pounds; oil-fired furnaces, 1,200 pounds; oil-fired crucibles, 900 pounds.

**Heat Treating Facilities:** 

Available nearby.
Services Available:

General machining, wood and metal patterns and matchplates on premises.

# Wallaceburg Brass Limited

1355 Wallace Street Wallaceburg, Ontario

Contact: Ray McLellan

Tel: 627-3361 Area Code: 519

WALLACEBURG BRASS LIMITED was founded in 1905 and has expanded continuously since, with present facilities covering 108,000 square feet. The company's foundry division was among the first in Canada to produce shell mold castings on a high production basis and today supplies plumbing and laboratory fittings as well as component parts for many types of industry from coast to coast. A complete staff of skilled engineers and draftsmen offers to assist in product design and engineering service. On a normal two-shift basis the foundry melts and pours 25 tons of brass a day with every heat charted and temperature controlled. The company also has die casting facilities through an associate company, Dominion Die Castings Limited (see Die Castings section).

#### FOUNDRY LOCATION:

Wallaceburg Brass Limited 1355 Wallace Street Wallaceburg, Ontario Tel: 627-3361 Area Code: 519

Type of Castings Produced:

Plumbing and laboratory fittings and component parts for many types of industry.

Size of Castings Produced:

From 3 ounces to 3 pounds.

Special Processes Used:

Shell molding and shell core.

Compositions:

Brass.

**Melting Facilities:** 

2 Ajax tilting type induction furnaces; FT-18 for brass melting.

Heat Treating Facilities:

None used.

Services Available:

Machining, plating, assembly, painting facilities nearby.

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# Albronze Foundry Ltd.

5325 - 1A Street S.W. Calgary, Alberta

Contact: Keith Ball Tel: 255-4688 Area Code: 403

ALBRONZE FOUNDRY LTD., which has a fast expanding non-ferrous foundry operation started in 1956, recently added permanent mold and injection molding equipment to its modern facilities to enter the die casting field. As a result, the company is now in an excellent position to serve a variety of industries with high quality die castings to customer specifications in all non-ferrous alloys except magnesium (see also Foundries section).

#### PLANT LOCATION:

Albronze Foundry Ltd. 5325 - 1A Street S.W. Calgary, Alberta Tel: 255-4688 Area Code: 403

Die Casting Alloys Used:

All non-ferrous alloys except magnesium.

**Die Casting Equipment:** 

16-inch and 12-inch.

Size of Die Casting:

1 ounce to 2 pounds.

Services Available:

Machining, finishing, product design on premises.

# **Automotive Die-Castings Limited**

P.O. Box 33

Newmarket, Ontario

Contact: Thomas McConomy

Tel: 895-9361 Area Code: 416

AUTOMOTIVE DIE-CASTINGS LIMITED is one of the successful aggressive newcomers to the expanding die casting field in Canada. Founded early in 1965 by three men with wide experience in die casting and assembly manufacturing, the company specializes in products for the automotive and appliance industries. Growth has been such that the company has expanded plant space several times over in its 18 months of operation and has now moved into modern new facilities.

#### PLANT LOCATION:

Automotive Die-Castings Limited 465 Davis Drive Newmarket, Ontario Tel: 895-9361 Area Code: 416

#### Die Casting Alloys Used:

Aluminum and zinc.

Die Casting Equipment:

250 and 600-ton Lester, 100-ton aluminum, 4-ounce plastic machine.

Size of Die Casting:

.01 ounce to 10 pounds.

Services Available:

Located nearby.

# **Barber Die Casting Co. Limited**

Box 416, Postal Station B Hamilton, Ontario

Contact: N. J. Clark Tel: 527-9178 Area Code: 416

BARBER DIE CASTING CO. LIMITED, founded in 1940 as a producer of zinc die castings employing 10 people, has since expanded into aluminum and magnesium and now has a staff of 300 in a modern plant with all the latest facilities. With product design, machining and finishing services, the company can supply a wide range of industries with die castings to customer specifications or designed by the company's engineers to meet customer needs. Associated with Doehler Jarvis Division of National Lead Company of Toledo, Ohio, it is in an excellent position to serve industry in the United States.

#### PLANT LOCATION:

Barber Die Casting Co. Limited Hillyard Street Hamilton, Ontario Tel: 527-9178 Area Code: 416

#### Die Casting Alloys Used:

Aluminum, magnesium and zinc.

#### Die Casting Equipment:

12 aluminum and magnesium die casting machines 250 to 1,400 tons; 8 zinc machines 250 to 1,400 tons.

#### Size of Die Casting:

Aluminum, less than 1 ounce to 25 pounds; magnesium less than 1 ounce to 16 pounds; zinc less than 1 ounce to 35 pounds.

#### Services Available:

Product design, machining and finishing on premises.

# **Carter Carburetor of Canada, Limited**

109 East Drive Bramalea, Ontario

Contact: J. G. Beresford

Tel: **677-0850** Area Code: **416** 

CARTER CARBURETOR OF CANADA, LIMITED has a modern plant with excellent facilities and an efficient engineering and technical staff capable of undertaking any die casting operation in aluminum alloys up to 15 pounds. Oriented to volume production of highly engineered products, the company currently specializes in fuel systems but can undertake die castings for any products involving finishing and assembly operations.

#### PLANT LOCATION:

Carter Carburetor of Canada, Limited 109 East Drive Bramalea, Ontario Tel: 677-0850 Area Code: 416

#### Die Casting Alloys Used:

Aluminum.

#### Die Casting Equipment:

400 and 600-ton Lester die casting machines.

#### Size of Die Casting:

To 15 pounds.

#### Services Available:

Machining, finishing, assembly and product design available nearby.

# **Dominion Die Casting Limited**

**Libby Street** Wallaceburg, Ontario

Contact: T. H. Campbell Tel: 627-3363 Area Code: 519

DOMINION DIE CASTING LIMITED, an associate company of Wallaceburg Brass Limited, is a pioneer in die casting in Canada having started in the field in 1931. As part of the Wallaceburg group of companies, the company can call on extensive ancillary facilities and associated engineering, technical and metallurgical experience. Located since 1951 in a 16,000-square-foot plant, the company has expanded rapidly. Its die cast products are in wide use in the automotive, household durables and other industries. A complete staff of engineers and draftsmen designs dies and tooling for new parts while excellent machining and other facilities are available within the company's own plant and in the other Wallaceburg company plants.

#### PLANT LOCATION:

**Dominion Die Casting Limited** Libby Street Wallaceburg, Ontario Tel: 627-3363 Area Code: 519

# Die Casting Alloys Used:

Aluminum, zinc.

Die Casting Equipment:

1 400-ton, 3 600-ton and 1 800-ton Lesters for aluminum; 1 50-ton, 6 400-ton Clevelands for zinc.

Size of Die Casting:

To 5 pounds in aluminum, to 7 pounds in zinc.

Services Available:

Machining on premises; plating, painting and finishing in associated plants.

# **Fisher Gauge Works Limited**

194 Sophia Street Peterborough, Ontario

Contact: C. W. Fisher Tel: 745-0567 Area Code: 705

FISHER GAUGE WORKS LIMITED specializes in the high volume production of small die cast gears, cams and similar components principally in zinc alloy. In 24 years of operation, the company has developed special skills and techniques for the economical production of such components completely free of flash. The use of single cavity dies operating in high speed, electronically controlled machines produces these components to standards of accuracy and uniformity unexcelled by other methods. The company also offers a highly efficient product design service.

#### PLANT LOCATION:

Fisher Gauge Works Limited 194 Sophia Street Peterborough, Ontario Tel: 745-0567 Area Code: 705

#### Die Casting Alloys Used:

Die Casting Equipment:

8 Fisher custom-built machines.

Size of Die Casting:

To 2 ounces and 2½ inches diameter.

Services Available:

Product design, machining, die making on premises.

# **Hudson Bay Diecastings Limited**

West Drive Bramalea, Ontario

Contact: G. F. Clark Tel: 677-3282 Area Code: 416

HUDSON BAY DIECASTINGS LIMITED is a new entry in the field of die casting in Canada established by Hudson Bay Mining & Smelting Limited, a major Canadian lead-zinc producer. Backed by the management and metallurgical expertise of the parent company, this new die casting establishment is in an excellent position to give top quality service on a wide range of zinc alloy die castings for the automotive and appliance industries. All equipment is factory new, of the latest design and fully automated. Complete machining, plating and finishing facilities are available.

#### FOUNDRY LOCATION:

Hudson Bay Diecastings Limited West Drive Bramalea, Ontario Tel: 677-3282 Area Code: 416

#### Die Casting Alloys Used:

Zinc

#### Die Casting Equipment:

500-800 ton Castmasters.

# Size of Die Casting:

8 ounces to 15 pounds.

### Services Available:

Complete machining, plating, finishing and product design on premises.

# **Lakeshore Die Casting Limited**

P.O. Box 25 Oakville, Ontario

Contact: G. W. Carr Tel: 924-9874 Area Code: 416

LAKESHORE DIE CASTING LIMITED, founded in 1946, has attained a leading position among Canadian die casters in its 20 years of operations. Producing a wide range of die castings in aluminum and zinc alloys, the company has extensive modern facilities and a staff of experienced engineering personnel. The company offers complete finishing services, designs the tooling necessary for producing to customer specifications and has a record of outstanding achievement in product design.

#### PLANT LOCATION:

Lakeshore Die Casting Limited 482 Queen Elizabeth Way Oakville, Ontario Tel: 924-9874 Area Code: 416

#### Die Casting Alloys Used:

Zinc and aluminum alloys.

#### Die Casting Equipment:

Zinc die casting machines up to 500 tons, aluminum to 800 tons.

#### Size of Die Casting:

2 ounces to 5 pounds in zinc; 2 ounces to 15 pounds in aluminum.

#### Services Available:

Engineering, tooling, machining, tumbling and wheelabrating on premises.

# **Lightning Fastener Co. Limited**

50 Niagara Street St. Catharines, Ontario

Contact: W. R. Haines Tel: 685-7321 Area Code: 416

LIGHTNING FASTENER CO. LIMITED started operations in 1924 as the first zipper manufacturing company in Canada. In the rapid expansion of this industry the company designed and developed its own high speed precision machines to produce millions of miniature castings to precise tolerances, flash free. Now equipped with 18 of these machines, the company, in addition to supplying a major part of the zipper market, also produces a wide variety of other miniature castings to the same exact tolerances, with high strength and freedom from porosity. These special purpose castings are manufactured, and in some cases designed, by the company for such industries as electronics and radio and automotive manufacturers.

#### PLANT LOCATION:

Lightning Fastener Co. Limited 50 Niagara Street St. Catharines, Ontario Tel: 685-7321 Area Code: 416

# Die Casting Alloys Used:

Zinc.

#### **Die Casting Equipment:**

18 Lightning die casting machines.

#### Size of Die Casting:

37 grams.

#### Services Available:

Complete engineering, toolroom, machine shop and plating facilities, component design and die building on premises.

# **National Hardware Specialties Limited**

P.O. Box 250 Wellington Street Dresden, Ontario

Contact: S. R. Gowan Tel: 683-4451 Area Code: 519

NATIONAL HARDWARE SPECIALTIES LIMITED, organized in 1945 as a hardware producer, is now owned by Cominco Ltd. of Montreal, one of the world's largest producers of lead and zinc. Since its inception the company has acquired the zinc die casting equipment and business of a steel products company and a majority interest in another die casting company, Schultz Die Casting Co. of Canada Ltd., Lindsay, Ontario. The company produces its own branded line of hardware including pulleys, hose hardware, building and cabinet hardware and bathroom fixtures, as well as custom zinc die cast parts for such industries as automotive, plumbing and appliances.

#### PLANT LOCATION:

National Hardware Specialties Limited Wellington Street Dresden, Ontario Tel: 683-4451 Area Code: 519

#### Die Casting Alloys Used:

Zinc

#### Die Casting Equipment:

100 to 800-ton machines.

#### Size of Die Casting:

½ ounce to 20 pounds.

#### Services Available:

Lathes, drill presses, turntables and other equipment for secondary operations; chrome plating and painting in subsidiary plant nearby.

# **Pressure Castings of Canada Limited**

1777 Weston Road Weston, Ontario

Contact: J. C. Griffin Tel: 241-9111 Area Code: 416

PRESSURE CASTINGS OF CANADA LIMITED, founded in 1937, was one of the pioneers of die casting in Canada. The company has enjoyed steady growth since it was founded and offers complete service from product design through to finished casting. With the most modern equipment available and a highly skilled staff of engineers and technicians, the company produces high quality die castings to exacting specifications for both military and industrial users.

#### PLANT LOCATION:

Pressure Castings of Canada Limited 1777 Weston Road Weston, Ontario Tel: 241-9111 Area Code: 416

#### Die Casting Alloys Used:

7inc

Die Casting Equipment:

Hot chamber die casting machines 250 to 800 tons. Size of Die Castings:

1 ounce to 30 pounds.

#### Services Available:

Complete from product design to finished goods on premises.

# Webster Mfg. (London) Limited

1161 King Street London, Ontario

Contact: S. G. Holdsworth

Tel: 455-1220 Area Code: 519

WEBSTER MFG. (LONDON) LIMITED originally entered the die casting field in 1936 to produce the intricate precision parts used in the company's spray guns and air compressors. It has since become one of Canada's major suppliers of custom die cast components, specializing in close tolerance precision castings. These are produced for both functional and ornamental use in the automotive, appliance, plumbing, electrical and other industries. More than 30 years of manufacturing experience has gained for the company a soundly based reputation for dependable quality products and speedy, efficient service.

#### PLANT LOCATION:

Webster Mfg. (London) Limited 1161 King Street London, Ontario Tel: 455-1220 Area Code: 519

# Die Casting Alloys Used:

Zinc.

#### Die Casting Equipment:

75-ton EMB automatic, 150-ton Lesters, 450-ton Reed Prentice, 500-ton Castmaster, 600-ton Reed Prentice.

#### Size of Die Casting:

Fraction of an ounce to 10 pounds.

#### Services Available:

Product design, machining, chrome plating to specifications, painting over white castings or over chrome plating, assembly work on premises.

INGOT MAKERS	aluminet alumbet	Pro-	broin	cadmic	cob	copper base	leo-	magnesic	mangane	nicke	silicon bas	6		babbite	die castii	solde.	type meto	Star
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# **The Canada Metal Company Limited**

721 Eastern Avenue Toronto 8, Ontario

Contact: W. Bloodworth

Tel: 465-4684 Area Code: 416

THE CANADA METAL COMPANY LIMITED is a fully integrated non-ferrous metals producer with seven manufacturing plants in Montreal, the Toronto area. Winnipeg, Calgary and Vancouver. In continuous operation since 1906, the company has steadily expanded to become one of the most diversified in its field. Initially concentrating on lead and zinc alloys, it now also produces an extensive range of finished products in addition to ingot and other stock forms of aluminum alloy, brass, bronze, cadmium, copper alloys, die casting alloys, lead, magnesium, zinc and tin. The company, now associated with Cominco Ltd. of Montreal, one of the world's largest smelters and refiners of lead and zinc. also produces non-ferrous forgings, castings and metal powders and specializes in roto cast centrifugally produced bar stock and finished products.

The Canada Metal Company Limited

The Canada Metal Company Limited 5524 Fourth Street East

6265 Notre Dame Street Fast

Montreal 5 Quebec

Tel: 255-3653

Area Code: 514

Calgary, Alberta

Tel: 234-4538

Area Code: 403

#### **PLANT LOCATIONS:**

The Canada Metal Company Limited Upton Road Scarborough, Ontario Tel: 755-5247 Area Code: 416

The Canada Metal Company Limited 1255 St. James Street Winnipeg, Manitoba Tel: 774-7455 Area Code: 204

The Canada Metal Company Limited 1428 Granville Street Vancouver 2, British Columbia Tel: 683-1367 Area Code: 604

# **Materials Produced:**

Non-ferrous alloys in ingot and other forms, die casting alloys, non-ferrous forgings and castings, lead oxides, roto cast centrifugally produced bar stock and finished products.

#### Type of Equipment:

Die cast pots, crucible.

#### **Testing Facilities:**

Spectrographic and chemical analysis, tensile and hardness testing on premises.

# Federated Metals Canada Ltd.

1110 Birchmount Road Scarborough, Ontario

Contact: D. Thomas Tel: 757-3246 Area Code: 416

FEDERATED METALS CANADA LTD. first started to produce metals in Canada in 1952 with purchase of a family business in Toronto, followed six months later by acquisition of a Montreal firm. Expansion quickly followed: in 1956 a new plant was opened at Scarborough, near Toronto, while another new plant at Lachine (Montreal) also went into operation in 1956. An extensive range of types of lead and zinc metals is produced at both plants. The Montreal plant operates a lead construction division and produces sheet lead, lead pipe and fittings in addition to type metals, babbitts, bar and wire solders, lead and solder powders. In addition to Castomatic solder and type metal, the Toronto plant produces babbitt and zinc die cast and has an extensive smelting operation for lead and tin drosses. Plating chemicals are also produced in the metal finishing division.

#### PLANT LOCATIONS:

Federated Metals Canada Ltd. 1110 Birchmount Road Scarborough, Ontario Tel: 757-3246 Area Code: 416 Federated Metals Canada Ltd. 1400 Norman Street Lachine, Quebec Tel: 637-3591 Area Code: 514 Contact: H. O. Trihey

#### Materials Produced:

Bar, wire and powdered solders; type metals, babbitts; tin, lead, zinc and copper anodes; lead alloys, lead products and antimonial leads; sheet and pipe, plumbing fittings, ribbon and wire, solder powders, lead bricks.

# Type of Equipment:

Melting kettles, reverberatory furnace, automatic casting machine, rolling mill, wire presses, drawing machine, lead pipe extruding press, powder machine.

#### **Testing Facilities:**

Quality control laboratories at both plants.

# **General Metals Industries Ltd.**

8726 Barnard Street Vancouver 14, British Columbia

Contact: O. F. Walker Tel: 261-4206

Area Code: 604

GENERAL METALS INDUSTRIES LTD. was formed in 1954 for the production of brass and bronze secondary ingots from non-ferrous scrap metals. In recent expansion the company installed new equipment doubling previous capacity. With this added capacity the company, which had previously concentrated on the British Columbia market almost exclusively, can serve additional markets with brass and bronze ingots. The company also produces secondary aluminum ingots and was considering going into zinc die cast as this booklet was being prepared.

#### PLANT LOCATION:

General Metals Industries Ltd. 8726 Barnard Street Vancouver 14, British Columbia Tel: 261-4206 Area Code: 604

#### Materials Produced:

Brass and bronze ingots, secondary aluminum ingots. Type of Equipment:

Rotary furnaces.

Testing Facilities:

Laboratory on premises.

# **General Smelting Company of Canada Ltd.**

834 Appleby Line Burlington, Ontario

Contact: M. W. Hollands

Tel: **637-5203** Area Code: **416** 

GENERAL SMELTING COMPANY OF CANADA LTD., established in 1931, is owned by Canadian Electrolytic Zinc Ltd. and associated with Noranda Mines Limited, a leading Canadian base metal mining company. General Smelting specializes in production of aluminum casting alloy ingots and zinc dust, all marketed under the trade-name GENCO. A full range of casting alloys in aluminum is produced by the company in a modern, newly equipped plant opened in late 1965. Ingots are supplied to all sections of the foundry industry from pattern makers to die casters. Aluminum hardener shot is also produced for alloying with special high grade zinc. Zinc dusts, in various grades, are produced for the chemical, newsprint, paint and gold mining industries.

#### PLANT LOCATION:

General Smelting Company of Canada Ltd. 834 Appleby Line Burlington, Ontario Tel: 637-5203 Area Code: 416

#### Materials Produced:

Zinc dusts, aluminum ingot in all casting alloy grades, ingot and shot in deoxidizing grades.

Type of Equipment:

Reverberatory furnaces.

**Testing Facilities:** 

Spectrographic and chemical laboratories on premises.

# **Metals & Alloys Company Limited**

195 Wicksteed Avenue Toronto 17, Ontario

Contact: J. A. Ashton Tel: 421-5771 Area Code: 416

METALS & ALLOYS COMPANY LIMITED, founded in 1934, now has three plants smelting secondary aluminum. brass and bronze ingots, aluminum extrusion billets, zinc die casting, slush casting and lead alloy ingots, solders, babbitts and various lead goods. A major Canadian supplier of aluminum alloy ingot, the company is also the exclusive Canadian distributor of all foundry ingot for the Aluminum Company of Canada and North American agent for R.R.350 Hiduminium aluminum alloy ingot. The company has continually expanded facilities since it was founded and continues to diversify. Equipped with all types of secondary smelting furnaces, the company's main facilities in Toronto now cover seven acres while the Montreal plant was recently expanded to 50,000 square feet and the Winnipeg plant was re-established on a three-acre site. With plants in these three main distribution areas the company is in an excellent position to serve United States customers wherever they are located.

#### **PLANT LOCATIONS:**

Metals & Alloys Company Limited 195 Wicksteed Avenue Toronto, Ontario Tel: 421-5771 Area Code: 416 Metals & Alloys Company Limited 1457 Chevrier Boulevard Winnipeg, Manitoba Tel: 474-2407 Area Code: 204

Metals & Alloys Company Limited 1611 Bercy Street Montreal, Quebec Tel: 526-2561 Area Code: 514

#### **Materials Produced:**

Secondary aluminum, brass and bronze ingots, aluminum extrusion billets, zinc die casting and lead alloy ingots, plumbers' lead goods, solders, babbitts, type metals.

#### Type of Equipment:

All types and kinds of secondary smelting furnaces. **Testing Facilities:** 

Chemical, spectrographic and quantometer laboratories on premises.

Riverside Smelting & Refining Works Ltd. 639 Farm Street Montreal 22, Quebec

Contact: S. A. Ikeman Tel: 933-2789 Area Code: 514

RIVERSIDE SMELTING & REFINING WORKS LTD. started in 1940 as a scrap metal processing company and in the 26 years since has steadily expanded into a full range of smelting and refining operations. Producing metals and alloys to customer specifications primarily for industries serving the construction, printing and plumbing trades, the company is unique in its methods of processing scrap into alloys which formerly required primary metals. Quality and alloy content are carefully controlled in the company's own modernly equipped analysis laboratories.

#### PLANT LOCATION:

Riverside Smelting & Refining Works Ltd. 639 Farm Street Montreal 22, Quebec Tel: 933-2789 Area Code: 514

#### Materials Produced:

Lead, lead alloys, tin alloys, solders, type metals, die casting alloys, babbitts, non-ferrous metals.

# Type of Equipment:

Melting pots, reverberatory furnaces.

**Testing Facilities:** 

Analysis laboratories on premises.

# United Smelting & Refining Division Usarco Limited

363 Wellington Street North Hamilton, Ontario

Contact: F. Levy Tel: 538-0111 Area Code: 416

UNITED SMELTING AND REFINING DIVISION, USARCO LIMITED, established in 1942, is a major producer of copper base alloy ingots covering the entire range of copper base alloys to any desired specification. Quality is controlled by a modern well equipped chemical laboratory. Major uses are in the manufacture of plumbing goods, bronze bushings, and bronze gears. Special alloys produced are used in extra high strength castings such as propellers, steel rolling mill slippers and wear plates. Acid resisting bronze and electrical conductivity alloys are available for specialized fields.

#### PLANT LOCATION:

United Smelting & Refining Division Usarco Limited 363 Wellington Street North Hamilton, Ontario Tel: 528-0111 Area Code: 416

#### **Materials Produced:**

Copper base alloys to any desired specification, produced in ingot form for foundry use.

# Type of Equipment:

Oil-fired reverberatory furnaces and rotary furnace. **Testing Facilities:** 

Chemical laboratory and physical testing on premises.



# CANADIAN TRADE OFFICES IN THE UNITED STATES

#### **Boston**

Consul and Senior Trade Commissioner Canadian Consulate General 607 Boylston Street Boston, Massachusetts 02116 Tel: 262-3760 (Area Code 617)

# Los Angeles

Consul and Senior Trade Commissioner Canadian Consulate General 510 West Sixth Street Los Angeles, California 90014 Tel: MAdison 2-2233 (Area Code 213)

# Philadelphia

Consul and Trade Commissioner Canadian Consulate 3 Penn Center Plaza Philadelphia, Pennsylvania 19102 Tel: LOcust 3-5838 (Area Code 215)

#### Chicago

Consul and Senior Trade Commissioner Canadian Consulate General 310 South Michigan Avenue Suite 2000 Chicago, Illinois 60604 Tel: 427-7926 (Area Code 312)

#### **New Orleans**

Consul and Trade Commissioner Canadian Consulate General 225 Baronne Street Suite 1710 New Orleans, Louisiana 70112 Tel: JAckson 5-2136 (Area Code 504)

#### San Francisco

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# Cleveland

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#### **New York**

Deputy Consul General (Commercial) Canadian Consulate General 680 Fifth Avenue New York City, New York 10019 Tel: JUdson 6-2400 (Area Code 212)

#### Seattle

Consul General Canadian Consulate General 1308 Tower Building Seventh Avenue at Olive Way Seattle, Washington 98101 Tel: MUtual 2-3515 (Area Code 206)

#### **Detroit**

Consul and Trade Commissioner Canadian Consulate 1139 Penobscot Building Detroit, Michigan 48226 Tel: WOodward 5-2811 (Area Code 313)

# Washington

Commercial Counsellor Canadian Embassy 1746 Massachusetts Avenue, N.W. Washington, D.C. 20036 Tel: DEcatur 2-1011 (Area Code 202)



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